STATEMENT OF WORK FOR REMEDIAL DESIGN

Del Monte Corporation (Oahu Plantation) Superfund Site,
Kunia, Oahu, Hawaii

1.0 INTRODUCTION

1.1 Site Background

The Del Monte Corporation (Oahu Plantation) Superfund site is an approximately 3,000 acre pineapple plantation currently operated by Del Monte Fresh Produce (Hawaii), Incorporated (DMFP). The plantation is located on the north-central plateau of the island of Oahu. The plateau is bounded to the west by the Waianae Mountain Range and on the east by the Koolau Mountain Range. The plantation has been used for cultivation of pineapple since the early 1940s. The DMFP facility is comprised primarily of agricultural areas but also contains one company-operated housing complex (Kunia Village) as well as equipment maintenance areas, pesticide storage facilities, warehouses, and administrative buildings.

Prior to 2004, DMFP also operated a company-owned housing complex at the Poamoho plantation. DMFP closed all operations at the Poamoho plantation on June 30, 2004. EPA deleted the Poamoho plantation from designation on the National Priorities List (NPL) on January 13, 2004 (69 FR 1923); accordingly, no work is required under the Record of Decision (ROD) or this Statement of Work (SOW) for the Poamoho plantation.

In April 1977, an accidental spill involving approximately 495 gallons of the soil fumigant ethylene dibromide (EDB) possibly containing 0.25% 1,2-dibromo-3-chloropropane (DBCP) occurred on bare ground within approximately 60 feet of the Kunia Well. The Kunia Well supplied domestic and agricultural water to the Kunia residents. The well was immediately tested and no contamination was found. The well was tested again in 1980 and EDB and DBCP were detected above MCLs. The well was disconnected from the drinking water system.

Groundwater occurs within two distinct zones in the Kunia Village Area. Perched groundwater extends to depths of about 100 feet. Perched groundwater is not used for any purpose, but is interconnected with the deeper, basal aquifer. The basal aquifer begins approximately 850 feet below ground surface.

EDB, DBCP, dichloropropane (DCP), trichloropropane (TCP), benzene, and lindane have been detected in the perched groundwater at concentrations exceeding Maximum Contaminant Levels (MCLs). These contaminants have also been detected in Kunia Village Area soils from 25 to 80 feet below ground surface at concentrations exceeding residential Preliminary Remediation Goals (PRGs). EDB, DBCP and TCP have been detected in basal groundwater at concentrations slightly above MCLs.

A Remedial Investigation (RI) Report was published in November 1998. Del Monte has also completed a Baseline Human Health Risk Assessment (May 2000), an Addendum to the Remedial Investigation Report (April 5, 2002) and a Phytoremediation Treatability Study (May 9, 2002). The Phytoremediation Treatability Study evaluated the successful use of plants to break down chemical contamination in the perched groundwater into non-toxic compounds. The Feasibility Study, which evaluates cleanup alternatives, was published in February 2003. The results of additional investigations in the Poamoho Section of the site were published in the March 17, 2003 Remedial Investigation Technical Memorandum 02-02, Investigation Results for Additional Other Potential Source Areas. EPA issued a Proposed Plan in

March 2003 describing the alternatives analyzed in the Feasibility Study (FS) and outlining EPA's preferred cleanup alternative. A public hearing on the Proposed Plan was held on April 2, 2003 and a ROD describing the selected remedy was signed on September 25, 2003.

The First Amendment to the Administrative Order on Consent (AOC) for Remedial Investigation/Feasibility Study was signed on January 12, 2004. The Amendment requires the Respondent to install four basal groundwater monitoring wells and begin extracting and treating water from the Kunia Well after installation of the first three wells is complete and construction of the fourth basal monitoring well has begun. Pursuant to the AOC, construction of the basal aquifer treatment system was approved by EPA prior to entry of a Consent Decree for Remedial Design/Remedial Action for the purpose of conducting a long-term pumping test on the Kunia Well. The AOC also states that any additional basal aquifer monitoring wells (beyond the four described in the First Amendment to the AOC) will be installed as part of RD/RA.

1.2 Purpose

The purpose of this Statement of Work (SOW) is to set forth the requirements for the Remedial Design (RD) of the selected remedy as defined in the ROD issued on September 25, 2003. However, the remedial design for the Kunia Well pump and treat system for source control of the basal aquifer was submitted to EPA on December 8, 2003 and approved by EPA on June 29, 2004 and is therefore not covered by this SOW. The RD is generally defined as those activities to be undertaken by the Respondent to develop the final plans and specifications, general provisions, and special requirements necessary to translate the ROD into the remedy to be constructed under the remedial action (RA) phase. This SOW is designed to provide the framework for conducting the RD activities at the Del Monte site. This SOW requires completion and delivery of the Final Design as set forth in the Summary of Deliverables in Attachment 1, unless EPA extends the timeframe in writing.

1.3 General Requirements

1.3.1 Conducting the Remedial Design (RD)

The Respondent shall design the RA to meet the Remedial Action Objectives (RAOs), Performance Criteria, and Applicable or Relevant and Appropriate Requirements (ARARs) set forth in Sections 8, 11, and 12 respectively of the ROD and this SOW. The Respondents shall conduct the RD in accordance with this SOW, the Consent Decree (CD), and the ROD. The RD shall also be consistent with the *Remedial Design/Remedial Action (RD/RA) Handbook* (U.S. EPA Office of Solid Waste and Emergency Response (OSWER), 9355.0-04B, EPA 540/R-95/059, June 1995), and other guidance used by EPA in conducting an RD, to the extent such guidance is applicable and appropriate for the Site. The primary contact for this SOW is the EPA Remedial Project Manger (RPM), Janet Rosati; Tel. (415) 972-3165; the secondary contact is the Section Chief, Michael Montgomery; Tel. (415) 972-3438. The State Department of Health contact is Eric Sadoyama, Tel. (808) 586-0955.

1.3.2 Summary of Deliverables

The Respondents shall submit a draft Remedial Design (RD) Work Plan within 60 days after the effective date of the Consent Decree in accordance with Section 2.1.2 of this SOW. The draft RD Work Plan shall include the summary of the required major deliverables and the schedule for submittals set forth in Attachment 1. Within 60 days after receipt of EPA comments on the draft RD Work Plan, or as otherwise extended by EPA, the Respondent shall submit a final RD Work Plan for EPA review and approval pursuant to Section VI of the CD. The deliverables and schedule approved by EPA in the final Work Plan shall become the requirements of this CD.

The Respondent shall consult and cooperate with EPA during the 30% and 90% design process as needed and shall discuss and obtain approval for critical decisions with EPA.

1.3.3 Items Covered by RD

The Respondent shall perform the remedy selected in the ROD and the Work described in the CD. This work includes but is not limited to the following.

Remedy for the perched aquifer and deep soils: The Respondent shall design a vegetated soil cap, including appropriate storm water controls, over the perched aquifer source area that meets or exceeds the Performance Criteria identified in the ROD and CD. The perched aquifer source area refers approximately to the portion of the perched aquifer in the Kunia Village area where concentrations of individual COCs in groundwater exceed 1.0 micrograms per liter (μ/L).

The Respondent shall design a soil vapor extraction (SVE) system and off-gas treatment system, with appropriate associated monitoring, in the perched aquifer source area that meets or exceeds the Performance Criteria identified in Section 11.1.1 of the ROD and CD.

The Respondent shall design a perched aquifer groundwater extraction and treatment system and associated monitoring system that meets or exceeds the Performance Criteria identified in Section 11.1.1 of the ROD. The–Respondent is presently operating a phytoremediation treatment system. The Respondent shall continue to operate the existing phytoremediation treatment system and shall either expand the existing system or, if necessary, design a perched groundwater physical treatment system as described in the ROD.

As is described in Section 11.1.1 of the ROD, additional perched aquifer investigations will be performed during design to complete the delineation of the source area in all directions. The Respondent shall adequately delineate the boundaries of the Kunia Village perched aquifer source area before completion of Remedial Design.

Remedy for the basal aquifer: The Respondent shall design a basal groundwater extraction and treatment system and associated performance and compliance monitoring systems that meet or exceed the Performance Criteria identified in the ROD and CD. The remedial design for the Kunia Well pump and treat system which provides basal aquifer source area control was submitted to EPA on December 8, 2003 and approved by EPA on June 29, 2004. Basal aquifer remedy components include pumping and treating contaminated groundwater in a phased manner, if necessary, starting at the Kunia Well, monitoring the effectiveness of source control and evaluating whether natural attenuation is effective at reducing contaminant concentrations in the downgradient plume to drinking water standards.

Hydraulic control must be demonstrated throughout the basal aquifer source area. Demonstration of hydraulic control (i.e. inward gradients) must be used to demonstrate that the groundwater extraction is controlling the lateral and vertical migration of contaminated groundwater out of the basal aquifer source area.

The effectiveness of natural attenuation will be determined by monitoring data which show that the size of the plume is generally stable, downgradient concentrations are decreasing and all cleanup standards will be met within approximately five years of containing the source area. Monitoring will be conducted for three years to ensure that sufficient information is available to select the contingency for MNA. A three year timeframe is selected because MNA has been predicted to achieve cleanup in three to five years. Therefore, there should be substantial evidence of the performance of MNA within three years. At

the end of three years, the Respondents shall prepare a Three-Year Basal Groundwater Monitoring Report.

Compliance with the performance criteria for MNA will be confirmed by quarterly groundwater sampling at the downgradient performance monitoring wells, point of compliance monitoring wells and sentinel monitoring wells. The point of compliance well(s) will be located downgradient of the leading edge of the downgradient basal aquifer plume. The Respondents shall demonstrate that cleanup standards will be achieved at the point of compliance well within approximately five years of attaining source control through annual technical evaluations of the progress of natural attenuation and the Three-Year Basal Groundwater Monitoring Report. If data from the basal groundwater monitoring wells installed subsequent to the ROD indicate that the remediation timeframe should be revised, the annual technical evaluation shall include the data to support such a revision.

As described in the ROD, if monitoring data show no evidence of natural breakdown, or that cleanup standards will not be achieved within five years, or a revised timeframe as approved by EPA in the Annual Technical Evaluation, the Respondents shall amend the design of the Kunia Well pump and treat system to accommodate additional pumping wells to ensure the entire plume is captured and treated. Additional groundwater extraction must be sufficient to ensure that groundwater cleanup standards are not exceeded at a point of compliance. EPA will identify the point of compliance at the time a phase two groundwater extraction action is selected. The point of compliance will be located downgradient of the leading edge of the downgradient basal aquifer plume

1.3.4 Personnel

The Respondent shall furnish all necessary and appropriate personnel, materials, and services needed for, or incidental to, performing and completing the RD.

1.3.5 Guidance and Reference Material

A list of primary guidance and reference material is attached (Attachment 3). The Respondent shall use the most recently issued guidance to the extent applicable and appropriate.

1.3.6 Estimate Cost

The estimated cost of the RA is $12.9 million which includes capital costs and operation and maintenance costs.

1.3.7 Communication

The Respondent shall communicate at least weekly with the EPA RPM, either in face-to-face meetings, or through conference calls or email. The Respondent shall communicate with EPA and HDOH as needed to discuss and resolve any issues regarding RD deliverables and progress and obtain technical input from EPA and HDOH.

1.3.8 Documentation

The Respondent shall document ~~key~~ significant decisions that are made in meetings and in conversation with EPA via letter or email. The Respondent shall forward this documentation to the EPA RPM within five working days of the meeting or conversation.

1.3.9 EPA Oversight

EPA will provide oversight of the Respondent's activities throughout the RD. EPA will review deliverables to assess the likelihood that the RD will achieve the ROD Performance Standards and that the RD correctly identifies the ROD Performance Standards and other requirements of the ROD, the CD and the SOW. Not withstanding any action by EPA, the Respondent remains fully responsible for achieving the Performance Standards and other provisions and requirements of the ROD, the CD and the SOW. Nothing in the CD, or in this SOW, or in EPA's approval of the Remedial Design or any other submission, shall be deemed to constitute a warranty or representation of any kind by EPA that full performance of the Remedial Design will achieve the ROD Performance Standards.

1.4 Timeframes and Deadlines

The timeframes and deadlines for submission of each deliverable are listed in Attachment 1.

2.0 PROJECT PLANNING AND SUPPORT

The purpose of this task is to determine how the site-specific remediation goals, as specified in the ROD, will be met. The following activities shall be performed as part of the project planning task:

2.1 Project Planning

2.1.1 Evaluate Existing Information

The Respondent shall obtain and evaluate existing data and documents pertinent to the implementation of the ROD. This information shall be used to determine whether any additional data are needed for RD implementation.

2.1.2 Develop Remedial Design Work Plan

Develop Draft RD Work Plan. The Respondent shall prepare and submit to EPA (and one copy to DOH), a draft RD Work Plan within 60 days after the effective date of this CD. The draft RD Work Plan shall identify the procedures and deliverables necessary to complete the remedial design and shall include the required major deliverables and the schedule for submittal of these deliverables set forth in Attachment 1. The Respondent shall identify any additional deliverables and include a schedule for the submission of these deliverables. The draft RD Work Plan shall include an assessment and comprehensive description of the additional data collection, evaluation, and pilot testing activities needed, if any, and a comprehensive description of the plans and specifications to be prepared. A comprehensive design management schedule for completion of each major activity and submittal shall also be included. The draft RD Work Plan shall be developed in conjunction with the Sampling and Analysis Plan (SAP) and Health and Safety Plan, although each plan shall be delivered under separate cover. Specifically, the RD Work Plan shall present the following:

- A statement of the problem(s) and potential problem(s) posed by the site and how the objectives of the RD will address the problem(s).
- A background summary setting forth: (1) a brief description of the site including the geographic location and a description of the physiographic, hydrologic, geologic, demographic, ecological, cultural, and natural resource features of the site; (2) a summary of the existing data including physical and chemical characteristics of the contaminants identified and their distribution among the environmental media at the site.

- The Respondent's technical and management approach to each task to be performed, including a detailed description of each task; the assumptions used; the identification of any technical uncertainties (with a proposal for the resolution of those uncertainties); the information needed for each task; any information to be produced during and at the conclusion of each task; and a description of the work products that will be submitted to EPA. The Respondent shall identify any prime contractors it plans to use to accomplish a task's objectives, as well as any subcontractors if requested by EPA
- A schedule for the start and completion of each required activity and submission of each deliverable required by this SOW. This schedule shall also include information about timing, initiation, and completion of critical path milestones for each activity and deliverable.
- Prepare Final Work Plan. EPA will provide comments on the draft RD Work Plan pursuant to Section VI of the CD. The Respondent shall revise the draft Work Plan in response to EPA's comments. The final Work Plan shall be submitted to EPA for review and approval in accordance with Section VI of the CD. After approval of the RD Work Plan by EPA, the RD Work Plan is incorporated into the CD as a requirement of the CD and shall be an enforceable part of the CD.

2.2 Project Status Reports

The Respondent shall prepare and submit monthly Project Status Reports to EPA and HDOH that document the progress and current status of each task required by this SOW and approved RD Work Plan. The report should consist of a simple tracking form for the tasks, a narrative of problems arising, and description of steps planned or underway to mitigate them. The format, and exact content of the reports shall be determined in the Work Plan.

3.0 DEVELOP OTHER SITE-SPECIFIC PLANS

The Respondent shall prepare and submit for EPA approval[1] the other site-specific plans specified in this SOW and in the approved RD Work Plan in accordance with the schedule specified in this SOW. The deliverables will be submitted for review in accordance with Section VI of the CD and will either be approved or disapproved by EPA. EPA will send written comments to Respondent specifying requested changes to each deliverable. Before disapproving any deliverable, EPA shall provide the Respondent with an opportunity to discuss the EPA's comments and requested revisions. If EPA disapproves the deliverable and requests modifications, the Respondent shall revise the deliverable and resubmit it to EPA as provided in Section XI of the CD.

The following describes other site-specific plans that are required because field work needs to be conducted during the RD process. The plans can be submitted in any format proposed by the Respondent and approved by EPA. The Respondent shall amend existing plans developed for the site that are relevant to these plans, as appropriate.

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[1] EPA shall "approve all plans when they have been submitted in a satisfactory manner, except the Health and Safety Plan. EPA does not offer "approval" of Health and Safety Plans. Each employer, contractor, etc. is responsible for ensuring that its workers follow applicable Federal and State worker health and safety regulations. EPA "approval" of a submittal, however, does not absolve the Respondent of the responsibility for ensuring that their work successfully achieves the Performance Standards and other provisions and requirements of the ROD, the CD and the SOW.

3.1 Site Management Plan

A Site Management Plan (SMP) must provide EPA with a written understanding of how access, security, contingency procedures, management responsibilities, decontamination, and waste disposal are to be handled during RD. The Site Management Plan shall include an RD Contingency Plan discussing the actions to be taken to protect the local community in the event of an accident or emergency. The Site Management Plan shall be submitted within 60 days after approval of the RD Work Plan.

3.2 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) for the site must specify how workers will be protected, during any site activities, through the identification, evaluation, and control of health and safety hazards. The HASP must also provide an emergency response plan, describing how to handle potential site emergencies and how to minimize the risks associated with a response. A HASP must also address health and safety requirements for site visitors. The HASP shall be submitted within 60 days after the effective date of the CD. The Respondent shall update the December 20, 1996 Health and Safety Plan for Remedial Investigations, as appropriate, to fulfill the requirements of this subtask.

3.3 Sampling and Analysis Plan for Remedial Design

A Sampling and Analysis Plan (SAP) for the Remedial Design process must be submitted within 60 days after the effective date of the CD, or may be incorporated into the RD Workplan. This SAP shall include the following components:

3.3.1 Site Quality Assurance Project Plan (QAPP)

A Site QAPP must be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations" (EPA QA/R-5, August 1994) (latest draft or revision). The QAPP shall describe sufficient detail to demonstrate that:

- The project technical and data quality objectives (DQOs) are identified, see "Guidance for the Data Quality Objectives (DQO) Process," (EPA QA/G-4, September 1994) for guidance;
- The measurements or data acquisition methods are appropriate for achieving project objectives;
- Assessment procedures are sufficient for confirming that data of the type and quality needed and expected are obtained; and
- `Any limitations on the use of the data are identified and documented.

3.3.2 Field Sampling Plan

The Field Sampling Plan (FSP) shall be consistent with the regional guidance document, "Preparation of a U.S. EPA Region 9 Field Sampling Plan for Private and State-Lead Superfund Projects", (EPA QAMS DCN 9QA-06-93, August 1993). A Field Sampling Plan (FSP) must define the sampling and data collection methods that will be used for the project. The FSP must include sampling objectives; sample locations and frequency, sampling equipment and procedures; and sample handling, labeling, and analysis, as well as the supporting rationale for those decisions. An FSP must be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required.

3.3.3 Additional Perched Aquifer Investigation

The Sampling and Analysis Plan (including the QAPP and FSP) for Remedial Design shall include additional sampling required to fully delineate the boundaries of the Kunia Village perched aquifer source area.

3.3.4 Basal Groundwater Monitoring.

Respondent shall implement the *Basal Groundwater Monitoring Plan* (Golder 2003) that was submitted to EPA on December 5, 2003 (with replacement pages dated January 6, 2004).

4.0 ENVIRONMENTAL SAMPLE ACQUISITION

Environmental sample acquisition entails collecting environmental samples and information required to support the RD, which includes full delineation of the boundaries of the Kunia Village perched aquifer source area. The planning for this task, including the scheduling, shall be accomplished in SOW Task 3.3, (Sampling and Analysis Plan) and shall result in the plans and timeframes required to collect the field data. Sample acquisition starts with EPA's approval of the Sampling and Analysis Plan (SAP) and ends with the demobilization of field personnel and equipment from the site. The Respondent shall perform the following field activities or combination of activities for sample acquisition in accordance with the EPA-approved SAP developed in Task 3.3.

4.1 Mobilization and Demobilization

Provide the necessary personnel, equipment, and materials for mobilization and demobilization to and from the site for the purpose of conducting the sampling program under Task 4.2, Field Investigation.

4.2 Field Investigation

Conduct environmental sampling/field investigations to include, as appropriate the following:

4.2.1 Site Reconnaissance

Conduct site surveys including, as appropriate, property, boundary, utility rights-of-way, and topographic information. These surveys are to refine the survey data from the RI/FS and to ensure the accuracy of the information for the RD.

4.2.2 Geological Investigations (Soils)

4.2.3 Conduct Air Investigations

4.2.4 Hydrogeological Investigations (Ground Water)

4.2.5 Waste Investigation

4.2.6 Dispose of Investigation-Derived Waste

Characterize and dispose of investigation-derived wastes in accordance with local, State, and Federal regulations as specified in the FSP.

5.0 SAMPLE ANALYSIS

The Respondent shall arrange for and have performed the analysis of environmental samples collected during the previous task, according to the Sampling and Analysis Plan approved by EPA in Task 3.3. The sample analysis task begins with arranging the sample analysis work with a state accredited laboratory and completing the field sampling program. This task ends with the Respondent verifying that the laboratory has completed the requested analyses and has submitted sample data packages for third party validation. For purposes of the SOW, "third party" is defined as any party other than the laboratory that performed the analysis.

6.0 ANALYTICAL SUPPORT AND DATA VALIDATION

The Respondent shall arrange for third-party validation of the analytical data received from the laboratory during the previous task, according to the Sampling and Analysis Plan established in Task 3.3. The sample validation task begins with the Respondents transmitting sample data packages received from the laboratory to the third-party data validators for validation in accordance with EPA's National Functional Guidelines for Data Review. The analytical laboratory may submit the sample data packages directly to the third-party data validators for validation. This task ends with the Respondent providing EPA with data validation reports for the analytical data received from the laboratory.

7.0 DATA EVALUATION

The Respondent shall organize and evaluate both pre-existing data and data gathered during Tasks 4.0, 5.0 and 6.0, that will be used later in the RD effort and that will be used to fully delineate the boundaries of the Kunia Village perched aquifer source area. This work shall be performed in accordance with the Sampling and Analysis Plan established in Task 3.3. The EPA "Guidance for Data Quality Assessment, EPA QA/G-9, July 1996" should also be consulted for this operation. Data evaluation begins with the receipt of analytical data from the SOW Task 6.0 (Analytical Support and Data Validation) and ends with the submittal of the Data Evaluation Summary Report described below. Specifically, the Respondent shall perform the following activities or combination of activities during the data evaluation effort:

7.1 Data Usability Evaluation and Field QA/QC

7.2 Data Reduction, Tabulation, and Evaluation

Tabulate, evaluate, and interpret the data. Present data in an appropriate presentation format for final data tables. Design and set up an appropriate database for pertinent information collected that will be used during the RD and to fully delineate the boundaries of the Kunia Village perched aquifer source area.

7.3 Modeling

As new information is acquired from basal monitoring wells installed during design, the Respondent shall conduct groundwater modeling using a calibrated fate and transport model to assist in evaluating the full extent of the downgradient plume and to aid in selecting appropriate locations for additional basal monitoring wells to confirm the full extent of the downgradient plume.

7.4 Develop Data Evaluation Summary Report

Evaluate and present results in a Data Evaluation Summary Report and submit to EPA for review and approval. Sufficient information must be provided in this report to enable EPA to assess the adequacy of the work performed. The Respondent shall submit the Data Evaluation Summary Report to EPA for review and approval, in accordance with Section VII of the CD within 45 days after receipt of analytical results from the laboratory and validation of the data.

8.0 GROUNDWATER MONITORING AND REPORTING

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9.0 SOIL VAPOR EXTRACTION SYSTEM PILOT TEST

Pilot scale testing is used to provide quantitative performance, cost and design information for remediation. The Respondent submitted a final Soil Vapor Extraction (SVE) Pilot Study Work Plan on October 23, 2003 that was responsive to EPA comments on the draft SVE Work Plan. The SVE Work Plan describes two pilot tests; a short-term test consisting of two 48-hour tests and one extended test performed over a period of approximately 4 months. The Respondent conducted the short-term test in November 2003.

- The Respondent shall perform an extended SVE test as part of this SOW. The extended pilot system test will be conducted according to the October 23, 2003 SVE Pilot Study Work Plan. The pilot test will be initiated within 30 days of approval of the RD Work Plan.
- The Respondent shall prepare an SVE Pilot Study Report that discusses the results of both the short-term and extended SVE test. The SVE Pilot Study Report shall be submitted within 30 days of receipt of validated analytical data.

10.0 PRELIMINARY DESIGN

The Respondent shall conduct Preliminary Design activities in accordance with the RD Work Plan (see Task 2.1.2). The components which constitute the Preliminary Design are described below and shall be submitted to EPA for review and approval in accordance with Section VI of the CD. The Preliminary Design shall be submitted within 90 days after EPA approves the Data Evaluation Report for the Perched Aquifer Investigation and the SVE Pilot Study Report. Preliminary Design begins with the initial design and ends with the completion of approximately 30 percent of the design effort. At this stage, the Respondent shall have field-verified the existing conditions of the site, as necessary. The Respondent shall include the following components in the Preliminary Design:

10.1 Design Criteria

The Design Criteria shall define in detail the technical parameters upon which the design will be basedSpecifically, the Design Criteria shall include the preliminary design assumptions and parameters,

including, as appropriate: (1) waste characterization; (2) volume and types of each medium requiring treatment; (3) treatment schemes (including all media and byproducts), rates, and required qualities of waste streams (i.e., input and output rates, influent and effluent qualities, potential air emissions, and so forth); (4) performance standards; (5) long-term performance monitoring and operations and maintenance (O&M) requirements; (6) compliance with ARARs, pertinent codes, and standards; (7) technical factors of importance to the design and construction including use of currently accepted environmental control measures, constructability of the design, and use of currently acceptable construction practices and techniques.

10.2 Specifications Outline

The general specifications outline shall include all specification sections to be used. Format and organization shall be in typical Construction Specification Institute (CSI) format.

10.3 Preliminary Construction Schedule

A preliminary schedule appropriate to the size and complexity of the project shall be included in the Preliminary Design.

10.4 Preliminary Drawings

The drawings and schematics shall reflect organization and clarity. This submittal should include (1) an outline or listing of proposed drawings and schematics; (2) facility representations including a revised process flow diagram and a preliminary piping and instrumentation diagram; (3) a general arrangement diagram; and (4) site drawings. Engineering drawings shall be submitted in 11"x17" sheets (or larger with approval from the EPA RPM).

10.5 Basis of Design

The Basis of Design shall include a detailed description of the evaluations conducted to select the design approach. It shall include a Summary and Detailed Justification of Assumptions. This summary shall include (1) calculations supporting the assumptions; (2) the draft process flow diagram; (3) a detailed evaluation of how ARARs will be met; (4) a plan for minimizing environmental and public impacts; and (5) a plan for satisfying permitting requirements.

10.6 Easement and Access Requirements

The need for land acquisition for access and easement requirements shall be identified.

10.7 Institutional Controls

The remedy requires institutional controls to prevent damage or interference with any component of the perched and basal aquifer remedies. The remedy also requires institutional controls prohibiting development of the Kunia Village source area for commercial, industrial, or residential use until remediation and post-operation monitoring is complete or until EPA agrees that such development will not cause a threat to public health. Respondent shall submit a legal description of the Kunia Village source area, the extent of the cap, and the extent of the perched and basal groundwater plumes. The Respondent shall submit site surveys specifying the location of the cap, SVE wells and off-gas treatment system, perched and basal monitoring and extraction wells, perched and basal treatment systems, as well as an engineering description of the cap, SVE wells and off-gas treatment system, perched and basal monitoring and extraction wells, and perched and basal treatment systems. The legal descriptions and site

surveys shall be certified by a Hawaii licensed land surveyor. The engineering description shall be certified by a registered civil engineer. Respondent shall also submit a title report for the Kunia Village source area and the extent of the basal aquifer plume.

If EPA disapproves the Preliminary Design and requests modifications, the Respondent shall revise this deliverable and shall resubmit it to EPA in accordance with Section XI of the CD. The re-submitted deliverable shall be accompanied by an explanation of how the deliverable has been modified to address the deficiencies identified by EPA and shall identify where the modifications are incorporated.

11.0 INTERMEDIATE DESIGN

No Intermediate Design deliverables shall be required at this time. However, if EPA determines that Intermediate design deliverables are required to enable EPA to effectively oversee the design effort, EPA may require the Respondent to submit such additional deliverables. The Respondent shall submit such additional deliverables within a reasonable time following receipt of EPA's notice that such additional deliverables are required, not to exceed 90 days. These deliverables will be submitted for review in accordance with Section VI of the CD and will either be approved or disapproved by EPA. If EPA disapproves the deliverable and requests modifications, the Respondent shall revise the deliverable and resubmit it to EPA as provided in Section XI of the CD. Such Intermediate Design deliverables, if required by EPA, may include the following components: Update of Construction Schedule.

11.1 Schedule

The schedule for implementation of the RA shall identify the timing for initiation and completion of critical path tasks. The schedule shall specifically identify duration for completion of the project and major milestones.

11.2 Intermediate Specifications

Plans and specifications shall conform to acceptable standards and shall be formatted in accordance with CSI requirements. Plans and specifications shall include preliminary specifications for construction, installation, site preparation, and field work standards, including an equipment startup and operator training plan and performance monitoring

11.3 Intermediate Drawings

Intermediate Drawings shall include an outline or listing of drawings; facility representations containing a process flow diagram, a piping and instrumentation diagram, and a control logic table; and continuation and expansion of drawings submitted with the Preliminary Plans and Specifications. It shall also include engineering drawings for grading/paving, foundation, and electrical, structural, and mechanical elements, etc., as appropriate.

11.4 Revised Design Basis

The Revised Design Basis shall include a revised summary of the evaluations conducted to select the design approach. This summary shall include any changes or additions made to the Design Basis, as presented in the Preliminary Design.

11.5 Updated Identification of Easement and Access Requirements

The need for land acquisitions for access and easement requirements shall be update, as appropriate, as part of the Intermediate Design.

11.6 Identification of the Projected O&M Requirement and Annual Cost

The Respondent shall identify the projected Operation and Maintenance (O&M) requirements, including performance monitoring, and develop an estimate of the annual O&M costs.

12.0 PREFINAL AND FINAL DESIGN

The Respondents shall conduct Prefinal and Final Design activities in accordance with the Work Plan established in Task 2.1.2. The components and deliverables which constitute the Prefinal and Final Design are described below and shall be submitted to EPA for review and approval in accordance with Section VI of the CD. Prefinal Design components and deliverables shall be submitted within 120 days after EPA approves the Preliminary Design and the report on the SVE Pilot Test. Final Design deliverables shall be submitted within 60 days after EPA approves the Prefinal Design. The Prefinal Design shall clearly show any modifications to the design resulting from the Intermediate Design review, if any such Intermediate Design deliverables were required by EPA subsequent to the issuance of this CD. After EPA review and approval of the Prefinal Design in accordance with Section XI of the CD, the Final Design shall be submitted. Final Design documents shall be approved and stamped by a Registered Professional Engineer. EPA approval of the Final Design, including the Final Draft O&M Plan and the Final Construction Quality Assurance Plan, is required before initiating the RA, unless specifically authorized otherwise by EPA. In accordance with the design management plan and schedule in the SOW (see Attachment 1) and the Work Plan (Task 2.1.2), the Respondents shall include the following components in the Prefinal Design:

12.1 Prefinal Specifications

A complete set of construction drawings and specifications (general specifications, drawings, and schematics) shall be submitted at the prefinal stage. Specifications shall conform to CSI format. The final design specifications must be consistent with the technical requirements of ARARs, must meet ARARs, Performance Criteria, and other provisions and requirements of the ROD, this CD, and the SOW. Any off-site response activities shall be in compliance with the policies stated in the Procedure for Planning and Implementing Off-Site Response Actions (58 Federal Register, Number 182, September 22, 1993, pages 49200-49218) and other applicable guidance. Before submitting the project specifications, the Respondent shall coordinate and cross-check the specifications and drawings.

12.2 Prefinal Drawings

A complete set of construction drawings shall be submitted in paper size 11"x17". A complete set of construction specifications shall also be submitted.

12.3 Prefinal Basis of Design

A Prefinal Basis of Design that incorporates any changes since the Preliminary Design shall be submitted.

If EPA disapproves the Prefinal Design and requests modifications, the Respondents shall revise this deliverable and shall resubmit it to EPA in accordance with Section XI of the CD. The re-submitted

deliverable shall be accompanied by an explanation of how the deliverable has been modified to address the deficiencies identified by EPA and shall identify where the modifications are incorporated.

12.4 Final Design Submittal

A Final Design shall be submitted within 60 days after EPA's approval of the Prefinal Design. The Final Design shall include the final version of the components identified in Sections 12.1 through 12.4.

12.5 Draft and Final Operation and Maintenance (O&M) Manual

The Respondent shall submit, as part of the Prefinal Design, a draft Operation and Maintenance (O&M) Manual for the cap, the perched and basal aquifer treatment systems, including O&M of the phytoremediation treatment system. EPA will provide comments on the draft O&M Manual pursuant to Section XI of the CD. Within 45 days after receipt of EPA comments, or as otherwise extended by EPA, the Respondent shall finalize and submit the Final Draft O&M Manual for review and approval in accordance with Section VI of the CD. The O&M Manual submitted with the Final Design are referred to as the Final Draft O&M Manual because it will not be finalized until completion of remedial construction. The O&M Manual shall describe, among other things, the compliance monitoring that will be conducted to measure the system's performance in reaching the standards set in the ROD. At a minimum, the manual shall include the following:

12.5.1 Description of Normal O&M

An operation and maintenance plan that includes a description of normal operation and maintenance including start-up procedures, tasks for operation, tasks for maintenance, prescribed treatment or operation conditions, and schedule for each O&M task.

12.5.2 Description of Potential Operating Problems

A description of potential operating problems including common and/or anticipated remedies and useful-life analysis of significant components and replacement costs.

12.5.3 Compliance Monitoring and Sampling and Analysis Plan

A description of the compliance monitoring strategy and tasks, location of monitoring points comprising the points of compliance monitoring, required data collection, and a description of required laboratory tests and their validation and interpretation.

12.5.4 Action if Cleanup Standards are Exceeded

Action to be implemented in the event that cleanup standards for ground water and air emissions are exceeded and a schedule for implementing these corrective actions.

12.5.5 Safety Plan for O&M

Safety Plan for O&M including a description of precautions and necessary equipment for site personnel, safety tasks required in event of systems failure, and safety tasks necessary to address protection of nearby residents.

12.5.6 Description of Equipment

Description of equipment including the equipment identification numbers, installation of monitoring components, maintenance of site equipment, and replacement schedule for equipment and installed components.

12.5.7 Records and Reporting Mechanisms

Records and reporting mechanisms required including, as appropriate, performance monitoring results, daily operating logs, laboratory records, records for operating costs, mechanism for reporting emergencies, personnel and maintenance records, and reports to U.S. EPA, its designates, and the State.

12.6 Draft and Final Construction Quality Assurance Plan

The Respondents shall submit, as part of the Prefinal Design, a draft Construction Quality Assurance (CQA) Plan. The CQA Plan shall be prepared consistent with applicable sections of "Construction Quality Assurance for Hazardous Waste Land Disposal Facilities" (EPA, October, 1986) and "Quality Assurance and Quality Control for Waste Contaminated Facilities", EPA/600/R-93-182, September 1993. EPA will provide comments on the draft CQA Plan pursuant to Section XI of the CD. Within 45 days after receipt of EPA comments, or as otherwise extended by EPA, the Respondents shall finalize and submit the final CQA Plan for review and approval in accordance with Section VII of the CD. At a minimum, the CQA Plan shall include the following elements:

12.6.1 Responsibility of Key Personnel

Responsibility and authority of organizations and key personnel involved in the remedial action construction (contractors, consultants, etc.).

12.6.2 CQA Personnel Qualifications

The Respondents shall establish the minimum qualifications of the CQA Officer and supporting inspection personnel.

12.6.3 Inspection Activities

The Respondents shall establish the observations and tests that will be required to monitor the construction and/or installation of the components of the Remedial Action. The plan shall include the scope and frequency of each type of inspection to be conducted. Inspections shall also be required to verify compliance with environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. Inspections shall also ensure compliance with health and safety procedures.

12.6.4 Sampling Requirements

The Respondent shall establish the requirements for sampling activities, sample size, sample locations, frequency of testing, criteria for acceptance and rejection, and plans for correcting problems as addressed in the project specifications.

12.6.5 Documentation

The Respondent shall describe the reporting requirements for CQA activities. This shall include, as appropriate, such items as daily summary reports and inspection data sheets.

13.0 COMMUNITY RELATIONS

The Respondent shall provide community relations support to EPA throughout the RD. The Respondent shall provide community relations support in accordance with *Community Relations in Superfund: A Handbook*, June 1988. Community relations shall include the following subtasks:

13.1 Fact Sheet Preparation Assistance

The Respondent shall, at the request of EPA, assist with the preparation of fact sheets that informs the public about activities related to the final design, the schedule for the RA, activities to be expected during construction, provisions for responding to emergency releases and spills, and any potential inconveniences such as excess traffic and noise that may affect the community during the RA.

13.2 Technical Support

The Respondent shall, at the request of EPA, provide technical support for community relations. This support may include preparing technical input to news releases, briefing materials, and other community relations vehicles, and helping the WAM/RPM to coordinate with local agencies.

13.3 Public Meeting Support

The Respondent shall, at the request of EPA, prepare presentation materials and provide logistical support for public meetings and open houses.

13.4 Public Notice

The Respondent shall, at the request of EPA or as otherwise needed, provide individual notice to residents in the vicinity of areas where work will be performed by the Respondent.

13.5 Report Copies

The Respondent shall, at the request of EPA, provide extra copies for the public of final deliverables or other documents produced pursuant to this CD.

ATTACHMENT 1
SUMMARY OF DELIVERABLES
DEL MONTE (OAHU PLANTATION) REMEDIAL DESIGN

Task	Deliverable	Number of Copies	Due Date (calendar days)
2.1.2 (1)	Draft RD Work Plan	4	60 days after effective date of Consent Decree (CD)
2.1.2 (2)	Final RD Work Plan	4	30 days after resolution of EPA comments
2.2	Project Status Reports	4	Monthly (or as otherwise approved by EPA
3.1	Site Management Plan	4	60 days after effective date of CD
3.2	Health and Safety Plan	4	60 days after effective date of CD
3.3	RD Sampling and Analysis Plan (including investigation to delineate the boundaries of the perched groundwater plume)	4	60 days after effective date of CD
7.4	Data Evaluation Summary Report	4	60 days after receipt of analytical results
9.2	SVE Pilot Study Report	4	30 days after receipt of validated analytical data
10.0	Preliminary Design: All components	4	90 days after approval of the Perched Groundwater Investigation Data Evaluation Summary Report and SVE Pilot Study Report
12.0	Prefinal Design: All components	4	120 days after approval of Preliminary Design and SVE Pilot Test Report
12.7	Final Design: Final Design Submittal	4	60 days after approval of Prefinal Design

ATTACHMENT 2
REGULATIONS AND GUIDANCE DOCUMENTS

The following list, although not comprehensive, comprises many of the regulations and guidance documents that could apply to the RD process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.
3. CERCLA Compliance with Other Laws Manual, Two Volumes, USEPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.
4. Community Relations in Superfund — A Handbook, USEPA, Office of Emergency and Remedial Response, June 1988, OSWER Directive No. 9230.0-3B.
5. A Compendium of Superfund Field Operations Methods, Two Volumes, USEPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. Data Quality Objectives for Remedial Response Activities, USEPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
7. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, USEPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
8. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, USEPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.
9. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, USEPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.
10. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.
11. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, USEPA Office of Emergency and Remedial Response (DRAFT), OSWER Directive No. 9283.1-2.
12. Guide for Conducting Treatability Studies Under CERCLA, USEPA, Office of Emergency and Remedial Response, Prepublication version.
13. Guide to Management of Investigation-Derived Wastes, USEPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.
14. Guidelines and Specifications for Preparing Quality Assurance Project Plans, USEPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.
15. Health and Safety Requirements of Employees Employed in Field Activities, USEPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
16. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, USEPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.

17. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, USEPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.

18. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).

19. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.

20. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.

21. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.

22. _____ OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]

23. _____ OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-2]

24. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.

25. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.

26. Procedures for Completion and Deletion of NPL Sites, USEPA, Office of Emergency and Remedial Response, April 1989, OSWER Directive No. 9320.2-3A.

27. Quality in the Constructed Project: A Guideline for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.

28. Remedial Design and Remedial Action Handbook (Draft), USEPA, Office of Emergency and Remedial Response, August 1993, OSWER Directive No. 9355.5-22.

29. Scoping the Remedial Design (Fact Sheet), May 1993, OSWER Publ. 9355-5-21 FS.

30. Standard Operating Safety Guides, USEPA, Office of Emergency and Remedial Response, November 1984.

31. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 1926, Occupational Health and Safety Administration.

32. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.

33. Superfund Remedial Design and Remedial Action Guidance, USEPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.0-4A.

34. TLVs-Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.

35. Treatability Studies Under CERCLA, Final. USEPA, Office of Solid Waste and Emergency Response, EPA/540/R-92/071a, October 1992.

36. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, USEPA, Office of Emergency and Remedial Response, July 1988.

37. USEPA Contract Laboratory Program Statement of Work for Organic Analysis, USEPA, Office of Emergency and Remedial Response, February 1988.

38. User's Guide to the EPA Contract Laboratory Program, USEPA, Sample Management Office, August 1982.

39. Guide to Documenting Cost and Performance for Remediation Projects, Publication EPA-542-B-95-002, March 1995.

40. Presumptive Remedies: Policy and Procedures, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9355.0-47FS, EPA 540-F-93-047, PB 93-963345, September, 1993.

41. Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9283.1-12, EPA 5401R/023, June, 1996.

42. Performance Monitoring of Monitored Natural Attenuation Remedies for Volatile Organic Compounds in Groundwater, April 2004, EPA/600/R-04/027

STATEMENT OF WORK FOR REMEDIAL ACTION

Del Monte Corporation (Oahu Plantation) Superfund Site,
Honolulu County, Hawaii

1.0 INTRODUCTION

1.1 Site Background

The Del Monte Corporation (Oahu Plantation) Superfund Site is an approximately 3,000 acre pineapple plantation currently operated by Del Monte Fresh Produce (Hawaii), Incorporated (DMFP). The plantation is located on the north-central plateau of the island of Oahu. The plateau is bounded to the west by the Waianae Mountain Range and on the east by the Koolau Mountain Range. The plantation has been used for cultivation of pineapple since the early 1940s. The DMFP facility is comprised primarily of agricultural areas but also contains one company operated housing complex (Kunia Village) as well as equipment maintenance areas, pesticide storage facilities, warehouses, and administrative buildings.

Prior to 2004, DMFP also operated a company-owned housing complex at the Poamoho plantation. DMFP closed all operations at the Poamoho plantation on June 30, 2004. EPA deleted the Poamoho plantation from designation on the National Priorities List (NPL) on January 13, 2004 (69 FR 1923); accordingly, no work is required under the Record of Decision or this Statement of Work (SOW) for the Poamoho plantation.

In April 1977, an accidental spill involving approximately 495 gallons of the soil fumigant ethylene dibromide (EDB) possibly containing 0.25% 1,2-dibromo-3-chloropropane (DBCP) occurred on bare ground within approximately 60 feet of the Kunia Well. The Kunia Well supplied domestic and agricultural water to the Kunia residents. The well was immediately tested and no contamination was found. The well was tested again in 1980 and EDB and DBCP were detected above MCLs. The well was disconnected from the drinking water system.

Groundwater occurs within two distinct zones in the Kunia Village Area. Perched groundwater extends to depths of about 100 feet. Perched groundwater is not used for any purpose, but is interconnected with the deeper, basal aquifer. The basal aquifer begins approximately 850 feet below ground surface.

EDB, DBCP, dichloropropane (DCP), trichloropropane (TCP), benzene and lindane have been detected in the perched groundwater at concentrations exceeding Maximum Contaminant Levels (MCLs). These contaminants have also been detected in Kunia Village Area soils from 25 to 80 feet below ground surface at concentrations exceeding residential Preliminary Remediation Goals (PRGs). EDB, DBCP and TCP have been detected in basal groundwater at concentrations slightly above MCLs.

A Remedial Investigation (RI) Report was published in November 1998. Del Monte has also completed a Baseline Human Health Risk Assessment (May 2000), an Addendum to the Remedial Investigation Report (April 5, 2002) and a Phytoremediation Treatability Study (May 9, 2002). The

Phytoremediation Treatability Study evaluated the successful use of plants to break down chemical contamination in the perched groundwater into non-toxic compounds. The Feasibility Study, which evaluates cleanup alternatives, was published in February 2003. The results of additional investigations in the Poamoho Section of the site were published in the March 17, 2003 Remedial Investigation Technical Memorandum 02-02, Investigation Results for Additional Other Potential Source Areas. EPA issued a Proposed Plan in March 2003 describing the alternatives analyzed in the Feasibility Study (FS) and outlining EPA's preferred cleanup alternative. A public hearing on the Proposed Plan was held on April 2, 2003 and a ROD describing the selected remedy was signed on September 25, 2003. The First Amendment to the Administrative Order on Consent (AOC) for Remedial Investigation/Feasibility Study was signed on January 12, 2004. The Amendment requires the Respondent to install four basal groundwater monitoring wells and begin extracting and treating water from the Kunia well after installation of the first three wells is complete and construction of the fourth basal monitoring well has begun Pursuant to the First Amendment to the AOC, construction of the basal aquifer treatment system was approved by EPA prior to entry of a Consent Decree for Remedial Design/Remedial Action for the purpose of conducting a long-term pumping test on the Kunia Well. The AOC also states that any additional basal aquifer monitoring wells (beyond the four described in the First Amendment to the AOC) will be installed as part of RD/RA.

1.2 Purpose

The purpose of this Statement of Work (SOW) is to set forth the framework and requirements for implementing the Remedial Action (RA) at the Del Monte (Oahu Plantation) Superfund site in accordance with the objectives of the Remedial Design (RD). The Record of Decision (ROD) issued on September 25, 2003 defines the selected remedy. The RA is the implementation phase of site remediation or construction of the remedy, including necessary operation and maintenance, performance monitoring, and special requirements. The RA is based on the RD and is intended to achieve the remediation goals specified in the ROD. A description of the RA is provided in Section 1.3.3 of this SOW. This SOW requires completion of construction and submission of a Remedial Action Report as set forth in the Summary of Deliverables, Attachment 1, unless EPA extends the timeframe in writing.

1.3 General Requirements

1.3.1 Conducting the Remedial Action

The Respondent shall conduct the RA in accordance with this SOW and the final plans and specifications developed during the RD. The RA shall also be consistent with the ROD issued on September 25, 2003, the *Remedial Design/Remedial Action (RD/RA) Handbook* (U.S. EPA Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995), and other applicable guidance used by EPA in conducting an RA to the extent appropriate. The primary contact for this Statement of Work is the EPA Remedial Project Manger (RPM), Janet Rosati; Tel. (415) 972-3165; the secondary contact is the Section Chief, Michael Montgomery; Tel. (415) 972- 3438

1.3.2 Summary of Deliverables

The Respondent shall comply with the schedule set forth in Attachment 1 in submitting deliverables and implementing the work at the site.

1.3.3 Items Covered by RA

The Respondent shall perform the remedy selected in the ROD and the Work described in the CD. This work includes but is not limited to the following.

Remedy in the ROD for the perched aquifer and deep soils: The Respondent shall construct a vegetated soil cap, including appropriate storm water controls over the perched aquifer source area, that meets or exceeds the Performance Criteria as described in Section 11.1.1 of the ROD and CD. The perched aquifer source area refers approximately to the portion of the perched aquifer in the Kunia Village area where concentrations of individual COCs in groundwater exceed 1.0 micrograms per liter (μ/L).

The Respondent shall construct a soil vapor extraction (SVE) system, and off-gas treatment system with appropriate associated monitoring, in the perched aquifer source area that meets or exceeds the Performance Criteria as described in Section 11.1.1 of the ROD and CD.

The Respondent shall construct a perched aquifer groundwater extraction and treatment system and associated monitoring system that meets or exceeds the Performance Criteria as described in Section 11.1.1 of the ROD and CD. The Respondent is presently operating a phytoremediation treatment system. The Respondent shall continue to operate the existing phytoremediation treatment system and shall either expand the existing system or, if necessary, design a perched groundwater physical treatment system as described in the ROD.

Remedy for the basal aquifer: The Respondent shall construct a basal groundwater extraction and treatment system and associated performance and compliance monitoring systems that meet or exceed the Performance Criteria identified in the ROD and CD. The remedial design for the basal groundwater pump and treat system which provides basal aquifer source area control was submitted to EPA on December 8, 2003 and EPA approved the final design on June 29, 2004

Basal aquifer remedy components include pumping and treating contaminated groundwater in a phased manner, if necessary, starting at the Kunia Well, monitoring the effectiveness of source control and evaluating whether natural attenuation is effective at reducing contaminant concentrations in the downgradient plume to drinking water standards.

Hydraulic control must be demonstrated throughout the basal aquifer source area. Demonstration of hydraulic control (i.e. inward gradients) must be used to demonstrate that the groundwater extraction is controlling the lateral and vertical migration of contaminated groundwater out of the basal aquifer source area.

The effectiveness of natural attenuation will be determined by monitoring data which show that the size of the plume is stable, downgradient concentrations are decreasing and all cleanup standards will be met within approximately five years of containing the source area. Monitoring will be conducted for three years to ensure that sufficient information is available to select the contingency for MNA. A three year timeframe is selected because MNA has been predicted to achieve cleanup in three to five years. Therefore, there should be substantial evidence of the performance of MNA within three years. At the end of three years, the Respondents shall prepare a Three-Year Basal Groundwater Monitoring Report.

Compliance with the performance criteria for MNA will be confirmed by quarterly groundwater sampling at the downgradient performance monitoring wells, point of compliance monitoring wells and sentinel monitoring wells. The point of compliance well(s) will be located downgradient of the

leading edge of the downgradient basal aquifer plume. The Respondent shall demonstrate that cleanup standards will be achieved within approximately five years of attaining source control through annual technical evaluations of the progress of natural attenuation and the Three-Year Basal Groundwater Monitoring Report. If data from the basal groundwater monitoring wells installed subsequent to the ROD indicate that the remediation timeframe should be revised, the annual technical evaluation shall include the data to support such a revision.

As described in the ROD, if monitoring data show no evidence of natural breakdown, or that cleanup standards will not be achieved within five years, the Respondents shall amend the design of the Kunia Well pump and treat system to accommodate additional pumping wells to ensure the entire plume is captured and treated. Additional groundwater extraction must be sufficient to ensure that groundwater cleanup standards are not exceeded at a point of compliance. EPA will identify the point of compliance at the time a phase two groundwater extraction action is selected. The point of compliance will be located downgradient of the leading edge of the downgradient basal aquifer plume.

1.3.4 Items to Furnish

The Respondent shall furnish all necessary and appropriate personnel, including subcontractors, materials, and services needed for, or incidental to, performing and completing the RA.

1.3.5 Guidance and Reference Material

A list of primary guidance and reference material is attached. See Attachment 2. The Respondent shall use the most recently issued guidance to the extent applicable and appropriate.

1.3.6 Communication

The Respondent shall communicate at least weekly with the EPA RPM, either in face-to-face meetings, or through telephone calls or email. The Respondent shall meet with EPA as needed to discuss and resolve any issues regarding RA deliverables and progress and obtain technical input from EPA.

1.3.7 Timeframes and Deadlines

The timeframes and deadlines for the submission of each deliverable are listed in Attachment 1.

2.0 PROJECT PLANNING AND SUPPORT

The purpose of this task is to plan for the execution and overall management of this work assignment. The technical and managerial activities required to implement the RA and the associated costs are developed during the planning phase and are detailed in the RA Work Plan. The following activities shall be performed as part of the project planning and support task:

2.1 Develop RA Work Plan

2.1.1 Develop Draft RA Work Plan

The Respondents shall prepare and submit to EPA a draft RA Work Plan pursuant to Section VI of the CD within 60 days after EPA approval of final design. The draft RA Work Plan shall be developed in accordance with the ROD and shall be consistent with the Final Design as approved by

EPA. The necessary procedures, inspections, deliverables, and schedules shall be specified. A comprehensive construction management schedule for completion of each major activity and submittal shall also be included. Specifically, the draft RA Work Plan shall include:

- Methodologies, plans, deliverables and schedules for completion of at least the following:
  - Identification of applicable permitting requirements and satisfactory compliance with the substantive provisions of the permit requirements;
  - Updating and implementation of the Operation and Maintenance Plan (including Performance Standard Compliance Monitoring and Sampling and Analysis Plan activities);
  - Development and submission of the Health and Safety Plan.
- A schedule for implementing remedial action tasks identified in this SOW. The schedule shall provide for the start and completion of each task, including major construction and operations activities, and the submission of each deliverable deemed necessary to meet the requirements of this SOW. (See Attachment 1). This schedule shall also include information about timing, initiation, and completion of critical path milestones for each activity and each deliverable.
- A description of the Respondent's Remedial Action Project Team including the Supervising Contractor, the organizational structure, a description of the responsibilities and authorities of organizations and key personnel involved, and a description of key project personnel's qualifications (project manager, resident engineer, quality assurance official.
- A description of the technical approach for the construction, operations and maintenance, and performance monitoring activities, and a description of the overall management strategy for the RA. The technical approach descriptions shall include a detailed description of the task, the assumptions used, the information needed for each task, information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA.

2.1.2 Prepare Final Work Plan

EPA will provide comments on the draft RA Work Plan pursuant to Section XI of the CD. The Respondent shall revise the draft Work Plan in response to EPA's comments. The final Work Plan shall be submitted to EPA for review and approval in accordance with Section VI of the CD. After approval of the RA Work Plan by EPA, the RA Work Plan is incorporated into the CD as a requirement of the CD and shall be an enforceable part of the CD.

2.1.3 Prepare Periodic Status Reports

The Respondent shall prepare Monthly Progress Reports that document performance status. The Respondent shall document the technical progress and status of each task for the reporting period. The reports are to be submitted by the 15th of each month.

2.1.4 Coordinate with Local Emergency Response Teams

The Respondent shall coordinate with local emergency responders to ensure the proper implementation of the HASP and specifically the Emergency Response Plan. The Respondent shall review and complete the emergency responder agreement, if necessary, conduct a kickoff meeting at

the site with local emergency responders, and notify the responders of any changes to the Emergency Response Plan throughout the RA.

3.0 UPDATE SITE SPECIFIC PLANS

The purpose of this task is to review the existing site-specific plans that were prepared during RD, and update as necessary, for the RA contractor to implement the RA. These plans include a sampling and analysis plan, health and safety plan, and construction quality assurance plan. This task begins with approval of the RA Work Plan and will occur throughout the duration of the RA. The Respondent has the overall responsibility to prepare, update, and/or maintain the necessary site-specific plans for implementation of the RA. The RA contractor will incorporate the plans and procedures received from any subcontractors into the overall site plans. The Respondent shall update the appropriate plans, as necessary, throughout the RA.

3.1 Update Site Management Plan

Within 60 days after EPA approval of the RA Work Plan, the Respondent shall update the Site Management Plan that was prepared during RD. This plan provides EPA with a written understanding of how access, security, contingency procedures, management responsibilities, decontamination, and waste disposal are to be handled during construction. The Respondent shall update the plan, as necessary, to incorporate any subcontractors' plans.

3.1.1 Update Pollution Control and Mitigation

The Site Management Plan shall outline the process, procedures, and safeguards that will be used to ensure contaminants or pollutants are not released off-site during implementation of the RA. Any plans and procedures prepared during the RD should be referenced or adapted whenever possible.

3.1.2 Update Transportation and Disposal

The Site Management Plan shall outline how wastes that are encountered during the RA will be managed and disposed of. The Respondent shall specify the procedures that will be followed when wastes will be transported off-site for storage, treatment, and/or disposal.

3.2 Update Health and Safety Plan

The Respondent shall prepare a site-specific HASP that addresses overall health and safety considerations for all personnel onsite. The Respondent shall incorporate the constructor's and any subcontractors' HASPs into the overall site plan. The Respondent shall provide the overall framework for site safety and ensure that adequate warning systems and notifications are understood by all parties. The HASP shall specify employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with [40 CFR 300.150 of the NCP and] 29 CFR 1910.120 1(1) and (1)(2). Whenever possible, refer to the HASP developed for the RI/FS or RD when preparing the HASP for the RA. The HASP shall be submitted within 60 days after EPA approval of the RA Work Plan.

3.3 Compliance Monitoring Plan

The Respondent shall prepare and submit a site-wide Compliance Monitoring Plan (CMP) within 60 days after EPA approval of the RA Work Plan. The CMP will reflect the specific objectives of any data acquisition conducted during construction. The CMP will outline the data collection and

quality assurance requirements of any sampling and analysis conducted by the Respondent. During preparation of the CMP, the Respondent shall update the Quality Assurance Project Plan (QAPP) prepared during remedial design as necessary for use with the CMP and O&M Plan.

3.4 Update Construction Quality Assurance (CQA) Plan

The Respondent shall review and update if necessary the final Construction Quality Assurance (CQA) Plan as submitted as part of the final design documents. Within 60 days after EPA approval of the RA Work Plan, the Respondent shall submit to EPA either a revised CQA Plan for review and approval pursuant to Section VI of the CD, or a letter requesting EPA approval to rely upon the existing CQA Plan, developed during RD. The CQA Plan shall outline the necessary steps to inspect and sample construction materials and other sampling and analysis that may be required during construction of the remedy, and to ensure the overall quality of the constructed project. The updated QAPP (see Section 3.3 above) shall also cover any sampling and analysis required under the CQA Plan. The CQA Plan will include the following elements:

3.4.1 Responsibility of Key Personnel

Responsibility and authority of organizations and key personnel involved in the remediation action construction (contractor, consultants, etc.).

3.4.2 CQA Personnel Qualifications

The Respondent shall establish the minimum qualifications of the CQA Officer and supporting inspection personnel.

3.4.3 Inspection Activities

The Respondent shall establish the observations and tests that will be required to monitor the construction and/or installation of the components of the RA. The plan shall include the scope and frequency of each type of inspection to be conducted. Inspections shall be required to verify compliance with environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. Inspections shall also ensure compliance with health and safety procedures.

3.4.4 Sampling Requirements

The Respondent shall establish the requirements for sampling activities, sample size, sample locations, frequency of testing, criteria for acceptance and rejection, and plans for correcting problems as addressed in the project specifications.

3.4.5 Documentation

The Respondent shall describe the reporting requirements for CQA activities. This shall include activity logs, weekly summary reports, and inspection data sheets.

4.0 ENVIRONMENTAL SAMPLE ACQUISITION TO SUPPORT THE RA

Environmental sample acquisition entails collecting environmental samples and information required to support the RA. The planning for this task shall result in the plans and schedules required to collect the field data. Sample acquisition starts with EPA's approval of the Compliance Monitoring

Plan (CMP). The Respondent shall perform the following field activities or combination of activities for sample acquisition in accordance with the EPA-approved CMP.

4.1 Mobilization and Demobilization

Provide the necessary personnel, equipment, and materials for mobilization and demobilization to and from the site for the purpose of conducting the sampling program.

4.2 Field Investigation

Conduct environmental sampling/field investigations as specified in the CMP.

4.3 Sample Analysis

Sample Analysis entails arranging for the analysis of environmental samples, collected during the previous task, according to the CMP approved by EPA. The sample analysis task begins with arranging the sample analysis work with a state accredited laboratory and ends with completing the field sampling program.

4.4 Analytical Support and Data Validation

Analytical Support and Data Validation entails arranging for and carrying-out third party validation of the analytical data received from the laboratory during the previous task, according to the CMP. The sample validation task begins with the Respondent transmitting sample data packages received from the laboratory to the third party data validators for validation consistent with EPA's National Functional Guidelines for Data Review.

4.5 Data Evaluation

Data Evaluation entails organizing and evaluating both pre-existing data and data gathered during Tasks 4.1, 4.2, and 4.3. This work shall be performed in accordance with the CMP. The EPA "Guidance for Data Quality Assessment, EPA QA/G-9, July 1996" should also be consulted for this operation. Data evaluation begins with the receipt of validated analytical from Task 4.4 (Analytical Support and Data Validation). Specifically, this task entails the following activities or combination of activities:

- Data Usability Evaluation and Field QA/QC.
- Data Reduction, Tabulation, and Evaluation. Tabulate, evaluate, and interpret the data. Present data in an appropriate presentation format. Design and set up an appropriate database for pertinent information collected that will be used during the compliance monitoring.
- Development of Data Evaluation Report. Evaluate and present results in a Data Evaluation Summary Report and submit to EPA quarterly for review and approval pursuant to Section VI of the CD. Sufficient information must be provided in this report to enable EPA to assess the adequacy of the work performed.
- Quarterly Groundwater Monitoring Reports. The Respondent shall prepare groundwater monitoring reports on a quarterly basis. The reports shall include, at a minimum, information on the sampling analysis methods used, groundwater levels, analytical results, and data quality assessment. For the perched aquifer, the reports shall include a description of the performance of the phytoremediation treatment system, including

extraction well, influent and effluent data. For the basal aquifer, the reports shall include a source area capture zone analysis and trend analysis for the downgradient plume. An annual technical evaluation of the progress of natural attenuation will be presented in the final quarterly report for each year. If data from the basal groundwater monitoring wells installed subsequent to the ROD indicate that the remediation timeframe should be revised, the final quarterly report for each year shall include data to support such a revision. If data show that the plume is not dissipating or the plume above MCLs is enlarging, alternative strategies will be developed and presented in a groundwater monitoring report for EPA approval prior to implementation. The frequency of reporting may be adjusted based on data from the Quarterly Reports.

- Three-Year Cumulative Basal Groundwater Monitoring Report. As part of the basal groundwater compliance monitoring effort, the Respondent shall prepare a draft and final Three-Year Cumulative Basal Groundwater Monitoring Report. The Report shall be prepared three years after source control has been attained and shall assess the monitoring data to evaluate whether the plume is dissipating, the rate of dissipation, and the time-frame expected to reach remediation goals throughout the plume. The Report shall include recommendations on whether to implement the contingency for monitored natural attenuation or whether additional groundwater extraction wells are needed to achieve remedial action objectives in the downgradient plume.

- Soil Vapor Extraction Monitoring Reports. The Respondent shall prepare SVE Monitoring Reports on a quarterly basis which document and describe the effectiveness of the system in removing contaminant mass from the perched aquifer source area. The reports shall include, at a minimum, vapor flow rates at each extraction well, pressure measurements at extraction wells and monitoring points, vapor concentrations and composition at each extraction well, water table elevations (for extraction wells that intercept perched groundwater), meteorological data (barometric pressure and precipitation), and the treatment unit influent and effluent vapor quality. The reports shall include an estimate of the total mass removed and the percentage of the initial mass that has been removed for each COC. The frequency of reporting may be adjusted based on data from the Quarterly Reports.

5.0 REMEDY CONSTRUCTION

The Respondent shall solicit, evaluate, select and award the necessary subcontracts to construct and implement the Remedial Action in accordance with the objectives of the Final Design as approved by EPA. The Respondent shall institute procedures, monitor progress, and maintain systems and records to ensure that the work proceeds according to the requirements specified in the contract documents which should be consistent with the approved Final Design.

6.0 DETAILED INSPECTION (SUPERVISING ENGINEER)

This task includes the field supervision and documentation of the RA constructor (s) work as it proceeds onsite. The task begins with the constructor's mobilization to the site and ends with the final inspection. The Respondent will provide the necessary personnel to observe the constructor's daily activities, procedures, and inspections.

6.1 Provide Field Presence and Oversight

The Respondent shall provide a Supervising Engineer to observe and document the daily field activities of the contractor in accordance with the CQA Plan approved by the EPA. Specific subtasks include:

- Maintain Daily Field Logs During Construction and Startup.
- Review Submitted Construction Drawings.
- Prepare Reports on Inspections.
- Monitor, Update, and Report Construction Progress.
- Conduct Final Inspection.
- Monitor Quality Assurance/Quality Control Procedures.

7.0 PROJECT PERFORMANCE (OPERATION AND MAINTENANCE [O&M])

The purpose of this task is to perform the activities necessary to operate the remedy, protect the integrity of the remedy, evaluate system performance, and document the attainment of the ROD cleanup goals specified by the ROD performance standards. This task begins during the later stages of construction with the revision of the O&M manual and ends with approval of final technical memoranda documenting achievement of the ROD performance standards.

7.1 Review O&M Manual

The Respondent shall review and update the final draft O&M Manual developed during RD to include as-built drawings and equipment data sheets, and any other changes as appropriate. The compliance monitoring data collection, laboratory tests, and validation described therein must conform to the EPA requirements for Sampling and Analysis Plans specified below. The revised manual shall be submitted to the EPA RPM for review and approval pursuant to Section VI of the CD within 45 days following completion of startup testing. If the remedy components are not started at the same time, separate O&M Manuals may be submitted for each component.

7.2 Ensure Adequate Training for O&M Staff

The Respondent shall support necessary training of the O&M staff.

7.3 Operate the Remedy

The Respondent shall operate the remedial system, as described in the O&M Manual, including normal operation and maintenance, preventative maintenance, repairs, and adjustments as needed to attain cleanup standards and the ROD performance criteria.

7.3.1 Remediation System Operation Performance

Evaluate Equipment including operating parameters and performance.

7.3.2 Performance Tests Oversight

The Respondent shall oversee any performance tests conducted by the constructor or operator and document procedures and results.

7.3.3 Gather and Test Samples Pertinent to Evaluating Proper System Performance

Refer to Section 3.2 for details regarding sampling and analysis conducted during construction and start-up of the remediation systems (see Task 6.5 for details).

7.3.4 Report Project Performance

The Respondent shall prepare a technical memorandum to summarize the system's performance under Section 6.4.1 and required revisions to the O&M procedures. The Respondent shall utilize, as appropriate, the guidance document entitled Guide to Documenting Cost and Performance for Remediation Projects, Publication EPA-542-B-95-002, March 1995. The technical memorandum shall be submitted to the EPA 30 days prior to the final inspection, for review and approval pursuant to Section VI of the CD.

7.4 Compliance Monitoring

The Respondent shall perform the compliance monitoring activities specified in the O&M Manual and CMP. These activities include, but are not limited to, the following activities:

7.4.1 Environmental Sample Acquisition

The Respondent shall conduct environmental sample acquisition, which entails collecting environmental samples and information required to support the RA. The planning for this task, including the scheduling, shall be accomplished in SOW Task 6.1 (Review O&M Manual), and shall result in the plans and schedules required to collect the field data. Sample acquisition starts with EPA's approval of the revised O&M Manual. The Respondents shall perform the following field activities or combination of activities for sample acquisition in accordance with the EPA-approved Compliance Monitoring Plan (CMP) as part of the O&M Manual in Task 7.1.

- Mobilization and Demobilization. Provide the necessary personnel, equipment, and materials for mobilization and demobilization to and from the site for the purpose conducting the sampling program under Subtask (2), Field Investigation.
- Field Investigation. Conduct environmental sampling/field investigations as specified in the CMSAP.

7.4.2 Sample Analysis

The Respondent shall arrange for and carry-out the analysis of environmental samples, collected during the previous task, according to the CMSAP approved by EPA in the O&M Manual in Task 7.1. The sample analysis task begins with arranging the sample analysis work with a state accredited laboratory and ends with completing the field sampling program.

7.4.3 Analytical Support and Data Validation

The Respondent shall arrange for and carry-out third party validation of the analytical data received from the laboratory during the previous task, according to the CMSAP established in the O&M Manual in Task 7.1. The sample validation task begins with the Respondent transmitting sample data packages received from the laboratory to the third party data validators for validation consistent with EPA's National Functional Guidelines for Data Review.

7.4.4 Data Evaluation

The Respondent shall organize and evaluate both pre-existing data and data gathered during Tasks 7.5.1, 7.5.2, and 7.5.3. This work shall be performed in accordance with the CMP established in the O&M Manual in Task 7.1. The EPA "Guidance for Data Quality Assessment, EPA QA/G-9, July 1996" should also be consulted for this operation. Data evaluation begins with the receipt of validated analytical data from the SOW Task 7.5.3 (Analytical Support and Data Validation). Specifically, the Respondent shall perform the following activities or combination of activities during the data evaluation effort:

- Data Usability Evaluation and Field QA/QC.
- Data Reduction, Tabulation, and Evaluation. Tabulate, evaluate, and interpret the data. Present data in an appropriate presentation format. Design and set up an appropriate database for pertinent information collected that will be used during the compliance monitoring.
- Development of Data Evaluation Report. Evaluate and present results in a Data Evaluation Summary Report and submit to EPA for review and approval pursuant to Section VI of the CD, within 60 days after the analytical results are received from the laboratory. Sufficient information must be provided in this report to enable EPA to assess the adequacy of the work performed.

8.0 COMMUNITY RELATIONS

The Respondent shall provide community relations support to EPA throughout the RA. The Respondent shall provide community relations support consistent with *Community Relations in Superfund: A Handbook*, June 1988. This task begins with the approval of the RA Work Plan and continues throughout the duration of the work assignment. Community relations shall include the following subtasks:

8.1 Prepare Fact Sheets

The Respondent shall, at EPA's request, assist in the preparation of fact sheets that inform the public about activities related to the final design, the schedule for the RA, activities to be expected during construction, measures to be taken to protect the community, provisions for responding to emergency releases and spills, and any potential inconveniences such as excess traffic and noise that may affect the community during the RA.

8.2 Technical Support

The Respondent shall, at EPA's request, provide technical support for community meetings that may be held during the RA. This support may include preparing technical input to news releases, briefing materials, arranging other community relations vehicles (i.e., site tours), and helping the EPA RPM to coordinate with local agencies.

8.3 Public Notice

The Respondent shall, at EPA's request or as otherwise needed, provide notice to residents in the vicinity of areas where work will be performed by the Respondent, either through fliers distributed door-to-door or through placing the notice in a local paper of general circulation.

8.4 Report Copies

The Respondent shall, at the request of EPA, provide extra copies for the public of final deliverables or other documents produced pursuant to this CD.

8.5 Maintain Information Repository.

The Respondent shall, at EPA's request, maintain a repository of information on activities related to the site-specific remedial action as described in Appendix A.8, page A-19, of *Community Relations in Superfund: A Handbook*, June 1988.

9.0 PROJECT COMPLETION AND CLOSE OUT

The purpose of the project completion and close-out activities is for the RA contractor to conduct the necessary inspections to verify completed work, make final payments, close out subcontracts, and prepare a Remedial Action Report.

9.1 Demobilization

9.1.1 Removal of Temporary Facilities

The Respondent shall dismantle, pack up, and move off-site any temporary facilities or equipment used during the course of the RA.

9.2 Pre-final/Final Activities

9.2.1 Pre-final Inspection

Within 30 days after the Respondent concludes that any component of the RA has been fully performed, the Respondent shall schedule and conduct with EPA and/or EPA's contractor, a prefinal inspection with the contractor and develop a punch list of deficiencies. The Respondent shall prepare and submit a prefinal inspection report for the component within 30 days after the prefinal inspection, for review and approval by EPA pursuant to Section VI of the CD. The report shall include the list of deficiencies, completion dates for outstanding items, and the date for a final inspection.

9.2.2 Final Inspection

The Respondent shall arrange for the final inspection and determine if all deficiencies have been corrected pursuant to Section XIV of the CD.

9.3 Remedial Action Report

Prepare Remedial Action Report. The Respondent shall prepare and submit to the EPA RPM for review and approval pursuant to Section XIV of the CD, the Remedial Action Report, in accordance with the fact sheet entitled, *Remedial Action Report, Documentation for Operable Unit Completion*, Publication 9355.0-39FS, June 1992. The report shall be submitted within 60 days after the Respondent concludes that all work has been satisfactorily performed. The report shall summarize RA events, performance standards and construction quality control, construction activities, final inspection, certification that the remedy is operational and functional, and O&M.

ATTACHMENT 1

SUMMARY OF SUBMITTALS FOR THE REMEDIAL ACTION DEL MONTE (OAHU PLANTATION) SUPERFUND SITE

TASK	DELIVERABLE	NO. OF COPIES	DUE DATE (calendar days)
2.1.1	Draft RA Work Plan	4	60 days after approval of final design
2.1.1	Final RA Work Plan	4	30 days after resolution of EPA comments
2.3.1	Periodic Status Reports	4	Monthly
3.1	Site Management Plan	4	Within 60 days after EPA approval of RA Work Plan
3.2	Update Health and Safety Plan (HASP)	4	Within 60 days after EPA approval of RA Work Plan
3.3	Compliance Monitoring Plan	4	Within 60 days after EPA approval of RA Work Plan
3.4	Updated Construction Quality Assurance Plan or letter requesting to use existing one	4	Within 60 days after EPA approval of RA Work Plan
4.5	Data Evaluation Report	4	Quarterly
4.5	Quarterly Groundwater Monitoring Reports and Soil Vapor Extraction Reports	4	Quarterly
4.5	Three-Year Groundwater Monitoring Report	4	Three years after source control attained
7.1	Updated Operations and Maintenance (O&M) Manual	4	Within 45 days following completion of startup testing
7.5.4	Data Evaluation Summary	4	Within 60 days after receipt of analytical results from lab
9.2.1	Prefinal Inspection Report	4	Within 30 days after Final Inspection
9.3.1	Remedial Action Report	4	Within 60 days after Respondent concludes that all work has been performed

ATTACHMENT 2

REGULATIONS AND GUIDANCE DOCUMENTS

The following list, although not comprehensive, comprises many of the regulations and guidance documents that could apply to the RD process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.

2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.

3. CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.

4. Community Relations in Superfund — A Handbook, U.S. EPA, Office of Emergency and Remedial Response, June 1988, OSWER Directive No. 9230.0-3B.

5. A Compendium of Superfund Field Operations Methods, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.

6. Data Quality Objectives for Remedial Response Activities, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.

7. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. EPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).

8. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.

9. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, U.S. EPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.

10. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.

11. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, U.S. EPA Office of Emergency and Remedial Response (DRAFT), OSWER Directive No. 9283.1-2.

12. Guide for Conducting Treatability Studies Under CERCLA, U.S. EPA, Office of Emergency and Remedial Response, Prepublication version.

13. Guide to Management of Investigation-Derived Wastes, U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.

14. Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.

15. Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.

16. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.

17. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.

18. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).

19. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.

20. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.

21. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.

22. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.

23. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.

24. Procedures for Completion and Deletion of NPL Sites, U.S. EPA, Office of Emergency and Remedial Response, April 1989, OSWER Directive No. 9320.2-3A.

25. Quality in the Constructed Project: A Guideline for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.

26. *Remedial Design/Remedial Action (RD/RA) Handbook*, U.S. EPA, Office of Solid Waste and Emergency Response (OSWER) 9355.0-04B, EPA 540/R-95/059, June 1995.

27. Revision of Policy Regarding Superfund Project Assignments, OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-2]

28. Scoping the Remedial Design (Fact Sheet), February 1995, OSWER Publ. 9355-5-21 FS.

29. Standard Operating Safety Guides, U.S. EPA, Office of Emergency and Remedial Response, November 1984.

30. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 926, Occupational Health and Safety Administration.

31. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.

32. Structure and Components of 5-Year Reviews, OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]

33. Superfund Remedial Design and Remedial Action Guidance, U.S. EPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.0-4A.

34. TLVs Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.

35. Treatability Studies Under CERCLA, Final. U.S. EPA, Office of Solid Waste and Emergency Response, EPA/540/R-92/071a, October 1992.

36. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, U.S. EPA, Office of Emergency and Remedial Response, July 1988.

37. USEPA Contract Laboratory Program Statement of Work for Organic Analysis, U.S. EPA, Office of Emergency and Remedial Response, February 1988.

38. User's Guide to the EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, August 1982.

39. Performance Monitoring of Monitored Natural Attenuation Remedies for Volatile Organic Compounds in Groundwater, April 2004, EPA/600/R-04/027